18. *Urine of Intermittent Fever.*—Surgeon Edw. Nicholson gives (*Madras Quarterly Journal*, July, 1863) an acconnt of some investigations on the state of the urine in intermittent fever. His observations show that in that disease there is a great increase in the water, the urea, and the chloride of sodium. "During the cold and hot stages," he says, "the urea is nearly doubled, and the chloride of sodium is increased to five times the normal amount.

"The increase of urea is common to all febrile diseases, and the remarkable increase of water and of chlorine has often been noticed. The principal points to which I would direct attention, as bearing both on physiology and on the pathology of ague, are the disappearance of uric acid during the whole of the day, and the remarkable decrease in the amount of phosphoric acid.

"The history of uric acid is not yet sufficiently complete for me to hazard any conjectures as to the cause of its disappearance.

"But what is especially worthy of attention is the diminution of the phosphoric acid to *one-eighth* of its normal amount, an amount which is not capricious or dependent on accideutal circumstances like that of uric acid, but is regular, caused by well-defined and well-studied actions in the human body, aud can be deduced from the weight of body, amount of food, work performed physical and mental.

"The phosphoric acid in the urine proceeds from three sources, metamorphosis of osseous tissue, of muscular tissne, and of nervous tissue. Many considerations, amongst which is the great dependence of the amount of phosphoric acid excreted on the work performed by the nervous system, lead to the generally received conclusion that by far the greater part of the phosphoric acid proceeds from the metamorphosis of nervous tissue.[1]

"Proceeding then, as phosphoric acid does, from the metamorphosis of nervous tissue, does not the diminution of phosphoric acid in the urine of ague, show that the disease is characterized by a depression, amounting nearly to paralysis, of some parts of the nervous system? I do not wish to enter too far into theoretical considerations, as those notes are rather intended as 'memoirs to serve for the history' of ague, than as proposing a pathological theory. Without being a *chimiatre*, I believe that chemistry and therapeutics are often the best basis for pathological research, and I would observe that the pathology of the urine of ague, the cachexia, often mental as well as physical, consequent on malarious disease, and the class of remedies employed in this disease, all point to a paralysis of some parts of the nervous system. All the remedies used in ague belong to the stimulant section of the class Neurotica—wine, ammonia, zinc, chalybeates, arsenic, quinine, the vegetable bitters, coffee, and perhaps tannin.

"Quinine has for the present dethroned arsenic and chalybeates from their high position in the treatment of ague, although they still continue to be the best remedies in chorea and neuralgia. The *modus operandi* of quinine in ague seems to be its power of augmenting the vital energy of the nervous system, and of enabling it to react against the paralyzing effect of malaria. This property is shared, in a greater or lesser degree, by most of the stimulant neurotics, especially by zinc, iron, and arsenic; the remedial action of these medicines in chorea is clearly to give the nervous system energy to react against the disease and restore the muscles to a proper state of subordination."

19. *Pulmonary Congestion in Children, simulating the Early Stage of Phthisis.*—In a lecture delivered at the Hôpital des Enfants Malades, M. Bouchut summed up his remarks in the following conclusions:—

There are cases of chronic pulmonary congestion which perfectly resemble, in their physical signs, tubercle of the lnngs in its first or crude stage. These congestions are asthenic, and are readily cured by the use of sulphureous waters; while true tuberculosis is much less amenable to this treatment.

Chronic pulmonary congestion is observed in children as well as in adults; it

[1] I may also mention that I have been informed on the best authority, that albumen prepared in a state of purity by Professor Graham's process of dialysis, does not contain phosphorus.

is the result of acute congestion, of bronchitis, of pneumonia either simple or attendant on measles, of rheumatic or herpetic bronchitis, or of pulmonary apoplexy which has not been entirely recovered from.

A kind of chronic pulmonary apoplexy, characterized by infiltration, destroying the pliability of the lung-tissue, and increasing its density, constitutes the anatomical condition of chronic pulmonary congestion.

Chronic pulmonary congestion may exist alone, and may remain so without the development of tubercle; on the other hand, it is tolerably often only the first phase of phthisis. In the same way as there are chronic hyperæmic states of the glands in children, which may or may not be followed by tubercle, so pulmonary congestion may be found to constitute the entire disease. Chronic pulmonary congestion must, however, always be looked on with suspicion, because it may be the origin of true phthisis.

Whatever be the nature of the induration of the lung—whether it be from congestion, exudation, apoplexy, or tubercle—its effect will be to partially arrest the blood-changes, by impeding the access of air to the pulmonary vesicles, and will produce the same physical signs.

Chronic pulmonary congestion, in scrofulous patients, necessarily leads to phthisis; in plethoric, rheumatic, and herpetic individuals, it remains in the congested or indurated state until resolution takes place.

Nothing has so great a resemblance as chronic pulmonary congestion to the first stage of phthisis; for the physical signs are alike, and the general symptoms are almost the same. The physical signs of chronic pulmonary congestion are, relative dulness of the chest; weakening of the vesicular murmur; prolonged expiratory murmur; some mucous rhonchi; and increased vocal resonance—signs generally held to be characteristic of crude tubercle in the lung. The general symptoms are cough, with or without expectoration; emaciation; and sometimes *malaise*, weakness, or a febrile state.

Chronic pulmonary congestion lasts from a few months to several years; but recovery generally takes place, unless the affection become complicated with tubercle. Pulmonary tubercle is very rarely recovered from: most of the alleged cases of recovery have in reality been cases of pulmonary congestion. The disease is more readily recovered from in rheumatic and herpetic than in scrofulous subjects.

The treatment should consist of cod-liver oil in the winter, and of quinine-wine and arseniate of soda in the summer; and the patient should be sent to the seaside or to the country.—*Brit. Med. Journal*, September 12, 1863, from *Gazette des Hôpitaux*, 21 July, 1863.

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20. *Red Line on the Gums in Phthisis.*—This sign, the importance of which was insisted on by the late Dr. T. Thompson, has been investigated by Dr. J. PICARD. He has found it present in thirty-five consumptive patients, in all stages of the disease; sometimes on both gums, sometimes on one only. In some cases, it extended along the whole length of the gum, while in others it was limited to one or two teeth; sometimes it was continuous, sometimes interrupted. The colour varied, being an intense red, or a violet or rose hue; sometimes scarcely deeper than that of the pallid gums themselves. In most instances, the line was level with the gum; sometimes it was raised; its breadth varied from one-hundredth to eight-hundredths of an inch. Sometimes there was a diffused ill-defined redness, which gradually shaded into the colour of the gum. In some patients, the red line disappeared as the disease advanced. In twelve cases, the gums were in so bad a state that it was impossible to arrive at any result from examination. The line was present in twelve doubtful cases of phthisis; and was absent in fourteen others. It was well marked in fifteen very healthy persons, who were free from cough, and regarding whom there was no reason for expecting that they would become phthisical. Dr. Picard observed the red line also in twenty cases of various diseases, especially typhoid fever. It is also strongly marked in persons who have been taking iodide of potassium or mercurials, or who have slight gingivitis from incrustation with tartar. Dr. Picard derives the following conclusions from his observations: 1. The red line is frequently present in pulmonary consumption, but has no semeiological value,